

REMARKS

Claims 1-81, 85-87, 92-97 and 99-128 are all the claims pending in the application.

I. REJECTIONS UNDER §251 AND §112, FIRST PARAGRAPH

Referring to Section No. 1 at page 2 of the final Office Action, Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. § 251 as being based upon new matter added to the patent for which reissue is sought. Also, referring to Section No. 2 at page 3 of the final Office Action, Claims 49-75, 85-87, and 100-128 are rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement.

These rejections are respectfully traversed.

The present rejections are closely related to each other and are essentially repeated from the Office Action mailed January 26, 2006. In the Amendment filed July 26, 2006, Applicants amended each of the presently rejected independent claims to recite that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity. The recitation “effective to improve plate wear resistance and sensitivity” recitation finds literal support by the description at column 6, lines 6-20, of the ’551 Patent. Moreover, Applicants submit that descriptions in the specification stating that the present copolymers must

contain at least one of monomers (a-1) to (a-3) are descriptions of preferred embodiments, and the specification describes a broader invention which encompasses a layer (A) which contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of “a monomer effective to improve plate wear resistance and sensitivity.”

In the final Office Action, the Examiner maintains that “[t]he original patent is limited to copolymers with at least 10% of at least one monomer of formulas a-1 to a-3 in layer A.”

Applicants traverse the present §251 and §112 rejections, on the basis that the functional definition of “a monomer effective to improve plate wear resistance and sensitivity,” together with the disclosure of the three monomer species (a-1) to (a-3), supports the generic claim scope of the monomer recitation in the presently rejected claims.

In support of this position, Applicants point out that a person of ordinary skill in the art would have easily recognized and appreciated that the many specific examples of monomer species identified as monomers (a-1) to (a-3) disclosed in the specification are monomers that are effective to improve plate wear resistance and sensitivity as now recited in the independent claims.

Because many monomers having the claimed property are disclosed in the specification, those skilled in the art would recognize the three monomer species (a-1) to (a-3) as being part of a genus whose members effectively improve plate wear resistance

and sensitivity. Therefore, the functional definition of “of a monomer effective to improve plate wear resistance and sensitivity,” together with the disclosure of many individual species within the three monomer groups (a-1) to (a-3) in the specification, supports the generic claim scope of the monomer recitation in the presently rejected claims. It is respectfully submitted that the functional characteristics of the disclosed monomers (a-1) to (a-3), which are monomers known to be “effective to improve plate wear resistance and sensitivity,” demonstrate that a person of ordinary skill in the art would have appreciated that applicants were in possession of the generic subject matter now recited in the amended claims, and the rejection under §112, first paragraph should be withdrawn. Furthermore, since this functional characteristic of each of the specifically disclosed monomers is now recited as a limitation of layer (A) in independent Claims 49, 100, 104, 106, 110, 111, 115, 119, and 123, the recitation of this functional characteristic in the present claims does not constitute new matter, and the rejection under §251 should be withdrawn.

While similar monomers having similar properties were known to those skilled in the art, their use in a positive-type photosensitive image-forming material, as recited in the claims of the present application, was new and unobvious.

In the July 2006 Amendment, Applicants amended each of independent Claims 49, 100, 104, 106, 110, 111, 115, 119, and 123, to recite that at least one of layer (A) and layer (B) comprises at least one compound which generates heat upon absorbing light.

The Examiner maintains that “[t]he presence of the compound that absorbs light to generate heat in Layer B is not disclosed as optional or preferred in the patent but rather as necessary” Applicants respectfully maintain, as previously argued in the December 2006 Amendment, that descriptions in the specification stating that the compound which generates heat upon absorbing light must be present in layer (B) are descriptions of preferred embodiments, and that Applicants need not limit the claims of the ’551 Patent to such preferred embodiments.

Claim 128, which depends from Claim 110, recites that layer (B) further comprises a cyanine dye. In the final Office Action, the Examiner rejects Claim 128 and states that it “contains new matter since the cyanine dyes for layer B are only disclosed in the specification and original patent as infrared absorbing dyes for generating heat.”

This rejection is respectfully traversed. Literal support for the subject matter recited in Claim 128 is provided by the description at, for example, column 16, line 66, through column 17, line 25, and column 18, lines 39-40, of the specification. Withdrawal of the present §251 and §112 rejections is respectfully requested.

II. PRIOR ART REJECTIONS

Referring to Section No. 3 at page 3 of the final Office Action, Claims 49-50, 53-55, 85-87, 100-101, 111-112, 115-116, 119-120, 123-124, and 127 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,922,502 (“Damme ’502”).

Also, referring to Section No. 4 at page 3 of the final Action, Claims 51-52, 56-75, 102-105, 110, 113, 117-118, 121-122, 125-126, and 128 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Damme '502 in view of U.S. Patent No. 5,731,123 ("Kawamura") and U.S. Patent No. 6,280,899 ("Parsons").

In addition, referring to Section No. 5 at page 3 of the final Action, Claims 49-50, 54, 58-61, and 64-67 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,060,222 ("West").

Each of these rejections has been essentially repeated from the Office Action mailed January 26, 2006.

These rejections are respectfully traversed, for the reasons stated in the July 2006 Amendment, and the following additional reasons. Each of the presently rejected independent claims recites that layer (A) contains not less than 50% by weight of an aqueous alkali-soluble polymer compound containing, as a polymerization component, 10% by mol or more of a monomer effective to improve plate wear resistance and sensitivity.

The rejections are respectfully traversed on the basis that neither of the primary references, i.e., Damme '502 or West, discloses a positive type photosensitive image-forming material having the presently claimed features, including a layer corresponding to presently claimed layer (A). The Examiner has not pointed to specific layers in the reference lithographic plates which correspond to and anticipate the present claims.

Moreover, neither Damme '502 nor West discloses a layer corresponding to layer (A) in the claimed positive-type photosensitive image-forming material, containing not less than 50% by weight of an aqueous alkali-soluble polymer compound, where the compound contains the recited monomer that is effective to improve plate wear resistance and sensitivity in the recited amount of 10% by mol or more. The anticipation rejection should be withdrawn on this basis, as well as for the following reasons.

Damme '502 relates to a three-layer thermographic lithographic printing plate, having coated on a hydrophilic substrate (1) a photosensitive layer that does not contain a material which generates heat upon absorbing light, and that is sensitive to UV light, (2) an intermediate layer that is soluble or swellable in an aqueous alkaline medium, and (3) an ablatable thermosensitive masking layer that is opaque to UV light, containing a binder and a thermally absorbing material such as infrared-absorbing carbon pigment or other pigments. (col. 2, lines 55-62). As Damme '502 makes clear, the lithographic plate is exposed by a two-step process, in which the thermosensitive layer (3) is first selectively ablated by imagewise infrared exposure to form a printing mask, and the photosensitive layer is then exposed through the mask. During development, both the remaining infrared mask layer and intermediate layer are completely removed "thanks to the presence of the intermediate layer." (col. 2, lines 38-48).

Damme '502 contains indiscriminate disclosure of various polymers that may be included in the intermediate layer (*e.g.*, col. 4, lines 2-12), but Damme '502 clearly teaches that it is necessary to select a binder for the intermediate layer that will be

completely removed during development, along with the remaining thermosensitive masking layer. Damme '502 contains only the most general description of the alkali-soluble binder that is present in the thermosensitive layer (3), apart from a specific example, which is nitrocellulose, and says nothing about the claimed layer (B) having a resin having a phenolic hydroxyl group. (col. 3, lines 1-10). Example 1 of Damme discloses a UV-sensitive photosensitive layer, overcoated with a polyethyleneglycol layer, containing no monomer that would or could be effective to improve plate wear resistance and sensitivity, overcoated with an IR-sensitive layer containing IR dyes and nitrocellulose. (col. 13, lines 15-57). Example 2 of Damme '502 discloses an Ozasol N61 plate that is overcoated with a layer containing polyvinylalcohol, containing no monomer that would or could be effective to improve plate wear resistance and sensitivity, overcoated with an IR-sensitive layer containing IR dyes and nitrocellulose. (col. 16, lines 36-45).

Because Damme '502 teaches that it is essential to chose a polymer for the intermediate layer that is completely removed during normal development, and that is effective to completely remove the remaining mask layer during normal development, Damme '502 plainly does not disclose a positive-type photosensitive image forming material, having a layer (A) containing not less than 50% by weight of an aqueous alkali-soluble polymer containing 10% by mole or more of "a monomer effective to improve plate wear resistance and sensitivity." The functions of the intermediate layer disclosed in Damme '502 are to improve the sensitivity of the thermosensitive layer towards laser

exposure, to facilitate removal of the masking layer during development, and to reduce adverse effects of the thermosensitive layer on developability. Nor does Damme '502 teach the presently-claimed combination of a layer (A) which improves both plate wear resistance and sensitivity, with a layer (B) which contains an aqueous alkali solution-soluble resin having a phenolic hydroxyl group.

In the final Office Action, the Examiner takes the position that "[t]he alkali soluble copolymer underlayers of West et al. and Van Damme et al. would inherently, at least to some extent, reduce heat dispersion into their substrates from heat generated by light absorbers in their upper layers which is the disclosed (col. 4) function of the copolymer underlayers A of the instant claims."

If it is assumed that the copolymer underlayer of Damme '502 would inherently, at least to some extent, reduce heat dispersion into the substrate from heat generated by light absorbers in their upper layers, this is not a functional characteristic recited in the present claims. The insulating function of the intermediate layer disclosed by Damme '502, which is to reduce the adverse effects of the thermosensitive layer on developability, emphasizes the absence of a material which generates heat upon absorbing light in the UV-sensitive layer of Damme '502.

By following the teaching of Damme '502, the intermediate layer of Damme would plainly not function to improve plate wear resistance and sensitivity as presently claimed, and the photosensitive layer of Damme '502 would not contain a material which generates heat upon absorbing infrared radiation.

Withdrawal of the rejection of Claims 49, 50, 53-55, 85-87, 100, 101, 111, 112, 115, 116, 119, 120, 123, 124 and 127 as being anticipated by Damme '502 is respectfully requested. Because Damme '502 teaches away from using any polymer in the intermediate layer that would function to improve plate wear resistance and sensitivity, withdrawal of the rejection of Claims 51, 52, 56-75, 102-105, 110, 113, 117, 118, 121, 122 125, 126 and 128 as obvious over Damme '502 in view of Kawamura '123 and Parsons is respectfully requested.

With respect to the rejection of Claims 49-50, 54, 58-61, and 64-67 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,060,222 ("West"), West does not disclose a positive-type photosensitive image-forming material as claimed, having a two-layer structure in which a layer (A) and a layer (B) each contain a material which generates heat upon absorbing light. At most, West may disclose a positive-type photosensitive image-forming material having a single layer which contains an alkali-soluble "reactive" resin, an infrared-absorbing compound, a thermochemical-acid generating compound which is a Bronsted acid precursor, and an alkali-dissolution inhibitor having an acid-cleavable C-O-C group. (col. 3, lines 6-17). The only other optional layers that may be present are subbing or antihalation layers that can be disposed under the imaging layer or on the backside of the support. (col. 7, lines 10-15). There is no disclosure in West that the subbing or antihalation layer contains an aqueous alkali soluble polymer, much less an aqueous alkali soluble polymer containing a monomer

effective to improve plate wear resistance and sensitivity in an amount of not less than 10% by mol, or a material which generates heat upon absorbing light.

Withdrawal of the anticipation rejection of Claims 49-50, 54, 58-61, and 64-67 is respectfully requested for these reasons.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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